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Liberty, Equality, Fraternity

For what reasons are young men daring and dying all over the world today? For what reasons are they suffering intolerable hardships, disease, broken bodies, shattered nervous systems and disrupted lives? What sustains their courage and morale in the jungles, on the desert, beneath the sea, in the air?

There is no simple answer to such questions. The motives that move these young men are as varied and as complex as life itself. Even those directly concerned could hardly give clear reasons for their attitudes and actions. Only those who remain behind—relatives, commentators, publicists, politicians—have the ready answer that these young men fight in defense of liberty. But what is liberty? It is a common term, yet it escapes simple definition. As a matter of fact it has many definitions, ranging from freedom of the mind to personal license. To the boy from the farm or factory it is something vaguely simple. He impatiently awaits a letter from his mother or his wife or his sweetheart. He longs to finish a disagreeable task and to return home and resume the ordinary routine of his life. That goal is *his* liberty. At the other extreme, the sensitive student-philosopher sees a Miltonic struggle between black forces of evil and those of light and goodness, and he eagerly rushes into dangers, glorying in the thought that he has a rendezvous with death. In that final hour he achieves *his* liberty.

Instead of giving formal definitions of liberty, writers of all periods usually have extolled its glories or commented on its qualities. Plutarch quoted Aristides as saying, "The Athenians will not sell their liberties for all the gold either above or under ground," the truth of which they had proved by their struggles against the Persians. Thomas Jefferson declared that "Eternal vigilance is the price of liberty."

Regarding the origin and preservation of liberty, Woodrow Wilson said in 1912: "Liberty has never come from government. Liberty has always come from the subjects of it. . . . The history of liberty is a history of limitations of governmental power." But statesmen and philosophers have more often commented on the qualities of liberty. In a somewhat pessimistic mood, Milton wrote: "License they mean when they cry, Liberty. For who loves that must first be wise and good." Edmund Burke, in a speech delivered in 1774, declared, "The only liberty I mean is a liberty connected with order; that not only exists along with order and virtue, but which cannot exist at all without them." George Bernard Shaw made the following interesting and somewhat cynical comment on liberty and human nature: "Liberty means responsibility. That is why most men dread it." Raymond Fosdick, considering the subject from a somewhat different angle, wrote, "Liberty is always dangerous, but it is the safest thing we have."

There are various general approaches to what is meant by liberty—from the point of view of the individual, from that of political organization, and from that of the over-all welfare of humanity. The first is elemental and essentially selfish; the second is legalistic and relatively impersonal, even though the liberties permitted or denied represent the composite judgment of the political group; the last rests on the broader base of what is advantageous for humanity as a whole.

Obviously the third approach to what liberty shall mean is the only one that promises a better future for humanity. It is not a new discovery, however. The French, with their genius for seizing on what is essential and expressing it with crystal clarity, a century and a half ago made the rallying cry of the French Revolution *"liberté, égalité, fraternité"*—liberty for the individual, equality before the law for citizens, fraternal feelings toward mankind. After striking off their own shackles and dyeing the paving stones of Paris with their blood, what a pity they could not have achieved for themselves a happier

future! The glory that was France was *liberté, égalité, fraternité;* the grandeur that was Napoleon was his marching legions. The glory inspired new hopes and ideals and glowed on in the hearts of a continent; the grandeur was scattered with the bones of young Frenchmen from the Baltic to the Mediterranean, from the Atlantic to Moscow.

Liberty, equality, fraternity! How can the happy state that these words imply be attained throughout the world? Obviously it can be attained only if people everywhere earnestly make it their goal. Certainly, scientists will do so. Without analyzing their motives and practices, they already have done so. May they now consciously and openly and vigorously advocate these principles of human attitudes both for the direct effect their actions may have and, also, as an example for all men to follow.—F.R.M.

"The Older Worker"

In the July, 1943, issue of *The Scientific Monthly* there appeared an article on "The Older Worker" by Dr. Anton J. Carlson which received the warm approval of many readers. A member of the Association from San Francisco wrote in reference to this article, in part, as follows:

I wish that everybody in the country could read this article—read it with care and read it with thoughtfulness. It is excellent and I think Dr. Carlson has done a fine job in publishing it.

The last paragraph of the article, which follows, will give an indication of the wisdom it contains:

According to the United States Census, the number of people past sixty-five years of age in our population has increased during the last ninety years from 2.6 per cent. to 6.8 per cent. If this trend continues, and I think this is assured by more of science and the better art in medicine, fifty years hence about fifteen out of every hundred people will be over sixty-five years old. I think we can add that, by and large, this army of older people fifty years hence will be even better qualified for useful work than are the people of the same age today. Thanks to more science and better art in today's medicine our larger aged army of 1940 is less decrepit than was our smaller army of sixty-five-year-olds a hundred years ago. It is sheer waste, bad biology, and gross injustice all around to feed, house, and clothe this army of idleness. Old age pension is not the answer. The dole is not the answer. The only answer is useful work for pay, plus sickness and accident insurance. When aging has rendered us incapacitated for useful work, we are truly sick, and sickness insurance should meet our needs. I think I am discussing important principals, not arguing about names, not fighting windmills. Still, it must be admitted that at sixty-eight some people fail to recognize their own delusions. I think that useful work is a privilege and a blessing, not a curse. It is also a biologic and social duty as long as we can carry on. Because the probability of less elastic arteries and less cardiac reserves, not to mention less strength in the skeletal muscles, the worker past sixty should, as a rule, not be put at tasks calling for the physical power that a worker, age twenty to forty, may deliver with safety. Moderation in all things, and a thorough medical check up twice a year will aid us in keeping fit to carry on. There is the prevailing view that quitting useful work before the infirmities of old age and specific disease compel it, hastens the age decline and brings on death sooner. It is difficult to check this view by adequate controls. So far as I know, this view is based on conspicuous instances, forgetting the exceptions. But to the extent that idleness decreases the zest of living, and unhappiness and depressing mental states actually impair some of our body machinery, it may be true; especially if the pleasure from good food is still strong, for in that case injurious over-eating is likely to become the rule. I dream of a tomorrow when our millions of men and women, well past the chronologic three score will say, with Albert J. McCray, age seventy-one, now running a drill press at a Douglas Aircraft plant, "I'd rather have a job than a pension any time" (*Time,* Dec. 14, 1942) for that spirit helps to keep the older worker young, and aids in making America stronger.

The Scientific Monthly, an illustrated journal in the fields of the natural and social sciences, now in its 57th volume, contains 96 pages each issue, a total of 1,152 pages per year (2 volumes). Members of the Association not receiving *The Scientific Monthly* may subscribe for it for $3.00 for the calendar year; to nonmembers the subscription rate is $5.00 per year.

The Science Mobilization Bill (S.702)

No bill of greater direct interest to scientists than The Science Mobilization Bill (S.702) has ever been under consideration by the Congress of the United States. Partly for this reason and partly in response to a request by Senator H. M. Kilgore, sponsor of the bill in the Senate, the Executive Committee of the Association gave the bill careful and prolonged examination. At a meeting held on June 25 it approved a resolution relative to the bill and directed the Permanent Secretary to transmit it to the Council of the Association for consideration and action, with the recommendation that the resolution be adopted by the Council. On July 15 the resolu-

tion, a ballot and a return envelope were sent to each member of the Council, with an accompanying note stating that the ballots would be counted by tellers on August 9.

The Council with no vacancies consists of 254 members, 52 of whom are elected by the Association, 35 of whom are elected by the 35 affiliated academies of science and 167 of whom are elected by affiliated scientific societies. Their distribution over the sciences is as follows: mathematics, 11; physics, 16; chemistry, 13; astronomy, 8; geology and geography, 21; zoological sciences, 40; botanical sciences, 36; anthropology, 5; psychology, 13; social and economic sciences, 7; historical and philological sciences, 5; engineering, 21; medical sciences, 38; agriculture, 10; and education, 10. At present there are three vacancies in the Council and 20 cases in which two or more affiliated societies elected the same member to the Council.

The result of the ballot as certified by the tellers was as follows:

Approval of the resolution	146
Opposed to the resolution	5
Defective ballots	2
Not voting	5

The President of the Association, Dr. Isaiah Bowman, upon receipt of the certificate of the tellers, declared the resolution on the Science Mobilization Bill (S.702), as passed by the majority vote of the Council, to be the official action of the American Association for the Advancement of Science.

The resolution, as presented to the Council consisted of a careful and objective examination of the entire bill, section by section, pointing out in connection with each one the bearings of its provisions upon science in this country. The purpose of the bill is to coordinate under political control all "scientific and technical facilities," "scientific and technical personnel" and scientific "agencies and establishments." By definition, "Scientific and technical facilities shall include all real and personal property, . . . programs, projects, . . . methods, procedures, . . . patents, inventions, . . . information or knowledge of every description used or intended to be used for scientific or technical purposes in research and development or in the production or supply of war of civilian goods or services." By corresponding definition, "Scientific and technical personnel shall include all persons, excepting physicians and dentists, who have completed any course of study in any college or university in any branch of science or its practical application or who have had not less than an aggregate of six months' training or employment in any scientific or technical vocation." "Agency or establishment" includes even colleges and universities. On the basis of the detailed analysis of the provisions in the bill by the members of the Council the following resolution was passed:

After careful consideration of the purposes and provisions of the Science Mobilization Bill (S.702), the American Association for the Advancement of Science, an organization having nearly 25,000 members (and having 187 associated and affiliated societies with a combined membership of over 500,000 persons whose interests cover broadly all the natural and social sciences) now, through its Council of about 250 members chosen from among the leaders of American science, respectfully recommends to the Senate and to the House of Representatives of the United States that the Kilgore Bill (S.702) be not passed either in its present form or in any other form containing similar provisions.

The Question of Scientific Meetings

Many scientific meetings during the past year were canceled at the request of the Office of Defense Transportation because of the great congestion of traffic on the railroads. Since the time for making preparations for scientific meetings next autumn and winter has arrived, officers of scientific societies are anxiously raising questions regarding the possibility of holding them this year.

Under date of July 15, Mr. Joseph B. Eastman, Director of the Office of Defense Transportation, issued an "advance release" on the holding of scientific meetings during the remainder of the war period. In this release appear the following paragraphs of special interest to officers of scientific societies:

The present huge volume of passenger traffic is taxing the capacity of the railroads and bus lines. Equipment to handle additional traffic cannot be obtained. The volume of military travel, moreover, is rising and will continue to rise. More than one-half of all Pullman sleeping cars, about one-third of all railroad day coaches, are now needed all the time to handle organized troop movements in special trains and special cars. The number of cars needed for troop movements is increasing. Facilities for accommodating civilian rail travel are decreasing.

The Office of Defense Transportation has consistently discouraged travel-stimulating events and all unnecessary civilian travel. With essential travel demands increasing, and with an outlook for continued increases in future months, our responsibilities permit no other policy. Maximum conservation of passenger travel facilities for the duration of the war is necessary to enable the railroads and bus lines to discharge their military and essential business travel responsibilities. . . .

I know that provisions of the constitutions or by-law of some organizations stipulate the holding of annual conventions, and that cancellation of the meetings may raise complications with regard to the tenure of officers and other matters. However, this is wartime. The emergency calls for emergency procedure. The action of many organizations in canceling conventions required by a literal reading of their governing rules indicates that such obstacles to compliance with the ODT request for cancellation can be surmounted where there is full appreciation of the pressing nature of the emergency and a real desire to cooperate.

The fact that one organization or another has adhered to its convention plans does not give other organizations a valid reason for thinking they should do likewise. Each organization must make its own independent decision. The Office of Defense Transportation cannot pass upon the essentiality of any proposed meeting. It can only emphasize the serious burdens which convention and group-meeting travel imposes on transportation and request voluntary action by those who have it in their power to eliminate such travel.

In substantiation of Mr. Eastman's statement about the continued congestion of passenger traffic on the railroads of the United States, the operating statistics for June of this year, as reported in the daily papers, shows that the passenger revenues were 69.8 percent higher than they were in June, 1942. Since it has been impossible, during the war period, to produce a large number of new railroad locomotives or passenger coaches, the burdens of passenger traffic on the railroads have been increasing and are not likely to decrease until the war passes into an entirely different stage.

Finances of the Association

Ever since the Association was organized, proper records of its finances have been considered highly important. The first Constitution of the Association provided that the accounts of the Permanent Secretary should be audited annually by auditors appointed at the meeting. These audited reports were published in the Proceedings volumes, the first one appearing in the volume for 1855, and were continued to be so published until 1914. Since then the financial reports have been published in *Science*. The financial reports of the Treasurer and of the Permanent Secretary for the fiscal year ended September 30, 1942, were published in *Science* for January 15, 1943.

By examining the published reports, together with the Constitution, some interesting information concerning the operations of the Association may be obtained. In particular, for the first three or four years, the "assessment" for each member was $1 annually, paid at the meeting, which included the cost of a copy of the Proceedings volume, and an additional assessment was provided for to be paid when registering for the meeting, but the amount is not stated. A new Constitution was adopted in 1856 which provided for an annual assessment of $2, and an additional $1 for the Proceedings volume if it was ordered. This provision continued in effect until 1874, when a revised Constitution was adopted which raised the annual assessment to $3 to include the Proceedings volume. It was not until 1867 that the Constitution called for an admission fee ($5) to be paid by new members. In 1904 the Constitution was again amended to abolish the fee of $2 which was paid on election to fellowship. Another amendment provided for the change from "assessments" to "dues." A revised Constitution was adopted at the St. Louis meeting in 1919 which provided that the dues shall be $5 and that there shall be an entrance fee of $5 to be paid by new members. These dues and fees are still in effect, but the entrance fee has been waived for individuals since 1938.

Arrangements were made in 1900, by resolution of the Council, to provide each member with a subscription for the weekly journal *Science*. This arrangement went into effect at the beginning of the Association's fiscal year 1901. In the Constitution, adopted in 1919, such subscriptions are specifically provided for, as well as the provision that *Science* shall be the official organ of the Association.

The Constitution that was adopted in 1874 provided for life membership, the fee being $50. (The fee is now $100, as provided for in the Constitution adopted in 1919.) These life membership fees were added to the permanent funds and the interest income has also been used for grants. In 1911 the Association received its first gift to be added to the permanent funds. Miss Jane M. Smith of Pittsburgh bequeathed $5,000, the income from which is to be used to elect "worthy and competent" members to life membership. By using the income from the fund and by adding to the income the fees of deceased life members created by the fund, 143 have been elected to life membership from among those who have longest been members of the Association. Another gift ($87,186.45) for the permanent funds came to the Association in 1916 from the estate of Richard T. Colburn, a life member

of the Association, the income from which is to be used for research. Still another substantial gift ($27,357.67) was received in 1932 through the estate of Hector E. Maiben, a Nebraska "dirt farmer." The income from this fund is to be used for general purposes; some of it has been used for "Maiben Lectures" which have been delivered in most instances at summer meetings. Other gifts to the permanent funds were bequests from the estates of W. Hudson Stephens, Michael P. Rich, A. G. Stillhamer, Luella A. Owen, and Jennie M. Arms-Sheldon, the amounts of which are $4,381.21, $10,000, $3,525, $500, and $1,000, respectively.

The dues collected from members by the Permanent Secretary, and which are almost the only source of income of his office, has been devoted mainly to the current work of the Association. Although there were several occasions when the books showed a cash deficit at the close of the year, for the most part the reports have shown favorable cash balances. Only since about 1900 has the cash balance been $4,000 or over, with the exception of three years. For the year ended September 30, 1942, the cash balance was $37,711.29, the largest in the history of the Association. Of this sum, $5,483.53 is in a reserve for publication of the Summarized Proceedings. It is desirable in these uncertain times that the Association have ample reserves, not only for its current work but also for new activities that may be desirable following World War II.

Resolution on Support of the War Efforts of the United States

In the May issue of the BULLETIN a "tentative draft" of a resolution on *Support of the War Efforts of the United States* was published. Simultaneously a copy of it was sent to each member of the Council of the Association for his consideration and approval or disapproval.

Of the 191 members of the Council who voted on the resolution, 172 favored it without comment or qualification, 15 favored it with qualifications and 4 simply declined to approve it.

Since the resolution was originally presented its wording has been considerably revised. It appears below in its final form.

The Resolution

We, scientists of the United States, through our largest general scientific organization, the American Association for the Advancement of Science, declare our support of the war against the Axis powers.

We are aware of the sacrifices which will be required before the goal of our national effort can be attained. As scientists who have devoted our lives to the advancement of learning, we contemplate with sorrow the effect of total war on the scientific progress of mankind. While in certain restricted areas advances in medical and other applied sciences keep step with improvements in instruments of war, taking the picture as a whole no one can believe that these years of total war will in the future be known as years in which the creative activities of the human mind have flourished in the arts, the letters or the sciences. Nevertheless, our principal concern for the present must be that the scientific talent of the United States be dedicated completely and whole-heartedly to the end of achieving victory in the minimum span of time. The sooner this agony of the war is over, the sooner the scientists of the world can resume their normal tasks.

In the last three hundred years, the progress of science has gone hand in hand with the development of individual initiative and personal freedom. We have contemplated with dismay the suppression of free inquiry in the totalitarian lands and the subordination of academic institutions to the tryanny of party government. We know that unless America can be free in the years ahead profoundly significant advances in sciences will not be forthcoming and our professions cannot long endure.

Therefore, Be it Resolved by the American Association for the Advancement of Science, through its Council of about 250 members chosen from among the leaders of American science, that we pledge our unfailing support of the war effort of the Government of the United States and stand ready to make any sacrifices as citizens and as scientists which our duly elected representatives may require.—JAMES B. CONANT and LEONARD CARMICHAEL, *Committee.*

Botanists and Phytopathologists

For several months the BULLETIN has been carrying brief historical sketches of societies that are affiliated with the Association. This month space is devoted to two botanical groups, the Botanical Society of America and the American Phytopathological Society, both of which have been affiliated since 1920.

Botanical Society of America, Inc.

The present Botanical Society of America was founded almost at the beginning of the century by the federation of the Botanical Society of America, the Society for Plant Morphology and Physiology, and the American Mycological Society. The Constitution of the Botanical Society of America was drawn up by a joint committee representing the three federating societies. The Society of Plant Morphology and Physiology adopted this Constitution on December 28, 1905; the Botanical Society of America and the American Mycological Society ratified the Constitution on January 1, 1906. The Botanical Society of America was formally established on December 27,

1906, when a joint meeting of the three societies adopted a resolution declaring the federation accomplished.

The Society voted on December 29, 1938, to incorporate under the laws of the State of Connecticut, and this was duly accomplished on May 9, 1939. A set of Bylaws was prepared by a committee appointed by the Council of the Society and the present rules and regulations were adopted by the incorporated Society on December 29, 1939.

The Botanical Society is organized without capital stock, not for business or profit, but for scientific and educational advancement in the field of botany. Its purposes include the following: to serve as a clearing house for the botanists of America in respect to all matters of general botanical interest; to support projects of general interest to botanists; to provide an opportunity for the presentation of research studies before a critical and competent audience; to furnish avenues of publication for such studies; and to accept and administer funds for the purposes indicated.

The Society is organized in six groups—the General, Paleobotanical, Physiological, Systematic, Pacific, and Southeastern Sections. The geographical sections hold summer meetings, and the others have separate sessions for presentation of papers in their fields at the annual meetings held in cooperation with the American Association for the Advancement of Science. All sections elect their own officers, and may act as independent units provided their activities do not conflict with the Charter or Bylaws of the Society.

The Botanical Society is affiliated with Section G (Botanical Sciences) of the American Association for the Advancement of Science, has two representatives on the Council of the A.A.A.S., and cooperates in planning and carrying out the program of the annual winter meeting of the Association.

At the time when the present Botanical Society of America was formed, the membership consisted of one patron, 27 life members, 61 members, and 42 associate members; a total of 131 members. Now, 36 years later, the membership totals almost 1400, including 30 corresponding members, one patron ($250), 7 life members ($100), and about 1350 members ($5).

In the year the present Society was founded, a total of 30 papers was presented at the annual meeting, whereas in 1941, at the last annual meeting held by the Society, 127 papers were presented.

In addition to the annual meeting normally held during the Christmas vacation, two or three summer meetings are held in various sections of the United States. The summer meetings are concerned mainly with taxonomy and ecology, and consist in large part of field trips.

The Society maintains as its official publication the *American Journal of Botany*, which is issued monthly except in August and September. The Journal includes annually about 125 scientific articles, plus numerous abstracts of papers presented at the annual meetings held by the Society. The Journal is at present in its 30th volume.

The Editorial Board of the *American Journal of Botany* consists of an Editor-in-Chief, five associate editors, four representatives of sections of the Society, and seven representatives from associated societies of the plant science group. Each paper submitted for publication is reviewed by authorities in the field and suggestions and criticisms are sent to the author before the paper is published. It is felt that this reviewing system serves to improve the quality of the papers and maintains a scientific standard for the Journal.

Miscellaneous publications are issued irregularly, such as programs of the summer and winter meetings of the Society, and the Yearbook which is compiled semi-annually. The Yearbook contains the names of officers of the Society, of the Council, and of various committees, the names, positions, and addresses of all members of the Society (arranged both alphabetically and geographically), reports of recent meetings held by the Society and its sections, and reports of the Treasurer of the Society and the Business Manager of the *American Journal of Botany*. The Yearbook is sent without charge to all members of the Society. Copies of it may be obtained by others from the Office of the Secretary upon payment of $1.

Other publications issued in recent years include: "An Exploratory Study of the Teaching of Botany in Colleges and Universities of the United States," and "Achievement Tests in Relation to Teaching Objectives in General College Botany," compiled and published by the Committee on Botanical Teaching.

The Committee on Nomenclature and the Committee on Botanical Teaching serve in special ways as needs may arise. In the fall of 1942 the President of the Society appointed an Emergency War Committee of six persons to serve in an advisory capacity to the National Research Council.—PAUL R. BURKHOLDER, *Secretary*.

The American Phytopathological Society

As a result of a report of a committee on "Organization of an American Phytopathological Society," a temporary organization was effected at Baltimore, Md., December 30, 1908. In response to a letter dated October 25, 1909, 130 individuals accepted the invitation to become charter members of the American Phytopathological Society. The first annual meeting of the Society was held in affiliation with the American Association for the Advancement of Science in the Harvard Medical School, Boston, Mass., December 30–31, 1909. Membership has grown from the original 130 to 1,086 as of February 12, 1943. All persons interested in the study of plant pathology, including the practical control of plant diseases, are eligible to membership. Active members, life members and patrons constitute the membership of the Society. Annual dues are $5, which includes the annual subscription to the official journal of the Society, *Phytopathology*, of which 42 volumes have been pub-

lished. Seven numbers of *Phytopathological Classics* have also been published under sponsorship of the Society.

Meetings for the presentation of scientific papers, special conferences, symposia, demonstrations, business sessions and joint sessions with Section G (Botanical Sciences) and other scientific societies are held each year in connection with the annual meeting of the American Association for the Advancement of Science. Usually a summer meeting has been held in connection with one of the official regional divisions of the Society of which three have been established, the Pacific, New England and Southern. These divisions hold annual meetings at which scientific papers may be presented, and may be published in the official organ of the parent society.

During the war period in which the Office of Defense Transportation discourages national meetings, only meetings of officers, councilmen and the War Committee of the Society are expected to be called. Regional meetings probably will be held for the purpose of determining the best means by which plant pathologists can contribute the most toward the war effort.

Since the organization of the Society its activities have been well covered in the annual reports published in *Phytopathology*. In addition to the annual reports, special articles of interest to members are published in various numbers. Volume 9 is of special interest, because it includes many papers read at the 10th anniversary meeting of the American Phytopathological Society, Baltimore, Md., December 23–28, 1918, the most important of which, historically, is "First Decade of the American Phytopathological Society," by C. L. Shear.

The first annual report of the society was published in *Science*, May 13, 1910. Articles for incorporation of the society were taken out under the laws of the District of Columbia, October 25, 1915. The first rules regarding organization and affiliation of branches, now called "divisions," of the society were adopted at the annual meeting in 1915.

The American Phytopathological Society was the first permanent off-shoot from the Botanical Society of America. The Society was organized because of the increased interest and importance of plant disease control, and because of the desirability of publishing together papers on the subject in a professional journal supported by a national society. The American Phytopathological Society is the only agency adequately organized for scientific and economic leadership in this important field.

At the 19th annual meeting held in the Carnegie Institute of Technology, Pittsburgh, Pa., December 28, 1917, to January 1, 1918, a resolution was presented and adopted, the same as the resolution adopted by the Botanical Society of America, and Section G (Botanical Sciences) of the American Association for the Advancement of Science. This resolution pointed out the need for increased production of food stuffs, the need for more extensive and immediate application to agricultural work of the results of botanical research, especially along the lines of plant disease control, the need of better organization, more funds, and deferment of trained men, and the need of an effective campaign for increasing agricultural resources. As a result of these needs it was:

Resolved, That committees should be appointed by the various botanical societies to prepare definite plans for the immediate mobilization of the botanists of the United States and for their more effective cooperation in the prosecution of war work, said plans to be referred to the Botanical and Agricultural Committees of the National Research Council, with a request for their active cooperation and assistance; and

That the Botanical and Agricultural Committees of the National Research Council be requested to take such steps as may be necessary to secure the detailing to special agricultural duty of those botanists who may have been called to military service, but who are found essential to the successful prosecution of botanical war work.

It is interesting to note that the needs as presented to the society in 1917 are very similar to the needs as presented to the society at the Dallas meeting in 1941. At the 1917 meeting, a War Emergency Board was appointed to carry out the provisions of the resolution. This War Board was very active in encouraging cooperation and initiating the wide-spread use of various plant disease control practices. At this time special attention was called to the importance of extension plant pathology as a recognized means of adult education. The War Board was instrumental in establishing national quarantines following the introduction into the country of some very serious plant diseases. It was also instrumental in setting up various wide-spread campaigns to eradicate or control plant diseases. At this time special attention was given to storage and market diseases of fruits and vegetables, and the importance of plant disease control surveys. Minutes of the War Emergency Board and various war emergency conferences in different regions are published in Volume 8, *Phytopathology*.

Following a panel discussion on "Plant Pathology in Relation to the War," at the 1941 Dallas meeting of the American Phytopathological Society, a war committee was appointed. This committee consists of an executive committee: E. C. Stakman, *Chairman*, L. G. Leach and R. P. White. The executive committee then appointed members at large, representatives of regional areas and subcommittees. The general objectives originally formulated by the committee are as follows:

1. Provide for more adequate plant disease quarantines, foreign and domestic, to guard against introduction and distribution of new and destructive disease organisms;
2. Intensify plant disease surveys to detect as soon as possible new disease introductions and to show where control efforts should be concentrated;
3. Summarize and codify known control measures and make them available to extension men and growers, in easily comprehensible form, and to encourage more adequate extension work in plant pathology;

4. Attempt to get necessary priorities on chemicals and machinery used in controlling diseases;

5. Concentrate effort on necessary experimentation and research designed to improve the effectiveness and economy of plant-disease control measures, by cultural practices, chemical treatments, and resistant varieties;

6. Summarize information regarding preservation of food and other products in storage and transit, make it available, and provide for necessary studies to meet new situations;

7. Scrutinize present basic and long-time research projects with a view to procuring support for those that are designed to yield facts and principles on which important procedures are based and those that could not be interrupted without serious loss of materials. accumulated results, and experience;

8. Secure personnel for above.

Since then additional problems have arisen and the committee continues to expand in its activities and usefulness.—C. C. Allison, *Secretary.*

Surface Chemistry

Surface Chemistry, a new volume in the series of technical symposia, is being bound and will be ready for distribution in the near future. This volume is based on a symposium that was held in September, 1941, in connection with the celebration of the fiftieth anniversary of the founding of The University of Chicago, in which the American Association for the Advancement of Science formally participated. It contains 10 papers by 15 authors.

The basic subject matter of this volume is not only of deep theoretical interest, but also of great practical importance. It points toward the elucidation of the means by which living cells exchange materials through their walls in the processes of metabolism. It may throw light on the way in which carcinogenetic hydrocarbons interact with normal cells. It suggests an explanation of the elasticity of rubber and of rubberlike materials, and these theories lead, in turn, toward explanations of the behavior of proteins and muscle tissues. It has innumerable technological applications in such important problems as lubrication, the adhesion of protective coatings to surfaces, and the dispersal of pigments throughout the media which carry them. In short, surface chemistry is basic both for certain important technological problems and for an understanding of fundamental physiological processes.

Like all earlier symposia in the series, it is quarto (double column), illustrated and cloth bound and contains vi + 160 pages.

Prepublication price to members: $2.25 to October 1; after October 1, $2.75. To others: $2.75 to October 1; after October 1, $3.25.

Officers of the Association

President, Isaiah Bowman; *Permanent Secretary,* Forest R. Moulton; *General Secretary,* Otis W. Caldwell; *Treasurer,* W. E. Wrather; *Assistant Secretary,* Sam Woodley.

Executive Committee: Burton E. Livingston, *Chairman;* Roger Adams, Joseph W. Barker, Isaiah Bowman, Otis W. Caldwell, Walter B. Cannon, J. McKeen Cattell, Roy E. Clausen, Kirtley F. Mather, F. R. Moulton, and W. E. Wrather.

Membership in the Association

According to the Constitution, the objects of the Association are to promote intercourse among those who are cultivating science in different parts of America, to cooperate with other scientific societies and institutions, to give a stronger and more general impulse and more systematic direction to scientific research, and to procure for the labors of scientific men increased facilities and a wider usefulness. Members may reside in any country. A person desiring to become a member of the Association should fill in a membership application card that may be obtained from the Office of the Permanent Secretary and return it with his payment of $5.00 for one year's dues. Every member in good standing receives with his membership a subscription for either *Science* or *The Scientific Monthly.* Dues are for the fiscal year that begins October 1; the subscription begins the following calendar year. A member desiring to receive both journals concurrently may do so by paying $3.00 in addition to the regular dues. Members in good standing receive also, without extra charge, subscriptions for the A.A.A.S. Bulletin, and they may purchase symposia publications at prepublication prices, and after publication at special prices to members.

A person who pays $100 during one fiscal year may be elected a life member; sustaining members pay $1,000. Both classes are exempt from the payment of further dues but are entitled to all the privileges of membership.

An incorporated scientific society or institution or a public or incorporated library may become a member by paying the entrance fee of $5.00 in addition to the dues. Such institution members are entitled to the same privileges as individual members.

Members are encouraged to nominate for membership persons who desire to cooperate in carrying out the objects of the Association. Names may be sent to the Office of the Permanent Secretary at any time. In the letter of invitation to become a member of the Association the name of the person making the nomination is ordinarily mentioned.

Changes of Address

New addresses for the Association's record and for mailing the journals *Science* and *The Scientific Monthly,* as well as the A.A.A.S. Bulletin, should be in the Office of the Permanent Secretary, Washington 25, D. C., at least two weeks in advance of the date when the change is to become effective.